

WHAT IS CLAIMED IS:

1. An optical head apparatus comprising:
an object lens which condenses light beams onto a
recording surface of an information recording medium or
5 the like which records information therein;
a lens holder which holds the object lens so as to
be movable in an optical axis direction of the object
lens and a direction parallel to the recording surface
of the information recording medium;
10. a magnet having surfaces on which an arbitrary
magnetic pole is directed in one direction;
a coil which has coil surfaces, is provided in the
lens holder, and generates a force in accordance with a
magnetic field from the magnet in order to move the
15 lens holder at least one of the optical axis direction
and the direction parallel to the recording surface;
a magnetic body which reduces transmission of the
magnetic field from the magnet which acts on the coil;
and
20. a support member which supports the lens holder so
as to be movable in a predetermined direction.

2. The optical head apparatus according to
claim 1, wherein the coil surfaces of the coil are
placed in substantially parallel with an arbitrary
25 magnetized surface of the magnet in an non-operating
state.
3. The optical head apparatus according to

claim 2, wherein the coil is an air-core coil provided on an arbitrary side surface of the magnetic body.

4. The optical head apparatus according to
claim 2, wherein the coil is a coil obtained by winding
5 a wire material around the magnetic body with the
predetermined number of turns.

5. The optical head apparatus according to
claim 2, wherein the coil surfaces of the coil are
formed into flat shapes on a sheet medium having a
10 predetermined thickness.

6. The optical head apparatus according to
claim 2, wherein the number of the coil surfaces of the
coil is two, and the coil surfaces are provided with
the magnetic body therebetween.

15 7. The optical head apparatus according to
claim 6, wherein the coil is an air-core coil provided
on an arbitrary side surface of the magnetic body.

8. The optical head apparatus according to
claim 6, wherein the coil is a coil obtained by winding
20 a wire material around the magnetic body with the
predetermined number of turns.

9. The optical head apparatus according to
claim 6, wherein the coil surfaces of the coil are
formed into flat shapes on a sheet medium having a
25 predetermined thickness.

10. An optical head apparatus comprising:
an optical head which has an object lens which

condenses light beams onto a recording surface of an information recording medium or the like which records information therein; a lens holder which holds the object lens so as to be movable in an optical axis direction of the object lens and a direction parallel to the recording surface of the information recording medium; a magnet having surfaces on which an arbitrary magnetic pole is directed in one direction; a coil which has coil surfaces, is provided in the lens holder, and generates a force in accordance with a magnetic field from the magnet in order to move the lens holder at least one of the optical axis direction and the direction parallel to the recording surface; a magnetic body which reduces transmission of the magnetic field from the magnet which acts on the coil; and a support member which supports the lens holder so as to be movable in a predetermined direction;

15 a photodetector which detects light beams reflected on the recording surface of the recording medium and converts them into an electric signal; and an information processing circuit which reproduces information recorded in the recording medium from the electric signal outputted from the photodetector.

11. The optical head apparatus according to claim 10, wherein the coil surfaces of the coil are positioned in substantially parallel with an arbitrary magnetized surface of the magnet in a non-operating

state.

12. The optical head apparatus according to
claim 11, wherein the coil is an air-core coil provided
on an arbitrary side surface of the magnetic body.

5 13. The optical head apparatus according to
claim 11, wherein the coil is a coil obtained by
winding a wire material around the magnetic body with
the predetermined number of turns.

10 14. The optical head apparatus according to
claim 11, wherein the coil surfaces of the coil are
formed into flat shapes on a sheet medium having a
predetermined thickness.

15 15. The optical head apparatus according to
claim 11, wherein the number of the coil surfaces of
the coil is two, and the coil surfaces are provided
with the magnetic body therebetween.

16. The optical head apparatus according to
claim 15, wherein the coil is an air-core coil provided
on an arbitrary side surface of the magnetic body.

20 17. The optical head apparatus according to
claim 15, wherein the coil is a coil obtained by
winding a wire material around the magnetic body with
the predetermined number of turns.

25 18. The optical head apparatus according to
claim 15, wherein the coil surfaces of the coil are
formed into flat shapes on a sheet medium having a
predetermined thickness.